Claims

1) A method of adapting an information carrying signal that comprises a plurality of data pulses that exhibit a range of pulsewidths and which are generated by a transmitter for transmission through a propagation medium, the method comprising the step of introducing one or more sub-pulses to one or more of the plurality of data pulses prior to the information carrying signal entering the signal propagation medium wherein a pulsewidth of each of the one or more sub-pulses is less than a minimum pulsewidth of the plurality of data pulses.

2) A method of adapting an information carrying signal as claimed in Claim 1 wherein an amplitude of the one or more sub-pulses is of an opposite sign to an amplitude of an associated data pulse.

3) A method of adapting an information carrying signal as claimed in Claim 1 or Claim 2 wherein the introduction of one or more of the sub-pulses are timed so that these sub-pulses are contained within one or more of the plurality of data pulses to which the sub-pulses are introduced.

4) A method of adapting an information carrying signal as claimed in any of the preceding claims wherein the introduction of one or more of the sub-pulses are timed so that these sub-pulses coincide with one or more edges of one or more of the plurality of data pulses to which the sub-pulses are introduced.

5) A method of adapting an information carrying signal as claimed in any of the preceding claims wherein the one or more sub-pulses are introduced to one or more of the plurality of data pulses when the data pulse exhibits a pulsewidth above a first predetermined pulsewidth of the plurality of data pulses so as to provide a means for low frequency filtering the information carrying signal.

6) A method of adapting an information carrying signal as claimed in any of the preceding claims wherein the one or more sub-pulses are introduced to one or more of the plurality of data pulses when the data pulse exhibits a pulsewidth below a second predetermined pulsewidth of the plurality of data pulses so as to provide a means for high frequency filtering the information carrying signal.

7) A method of adapting an information carrying signal as claimed in Claim 5 wherein the first predetermined pulsewidths of the plurality of data pulses corresponds to the minimum pulsewidth of the plurality of data pulses so as to provide a means for equalising the information carrying signal.

8) A method of adapting an information carrying signal as claimed in any of the preceding claims wherein the timing of introducing the one or more sub-pulses to one or more of the plurality of data pulses is variable.

9) A method of adapting an information carrying signal as claimed in any of the preceding claims wherein the

number of sub-pulses introduced is directly dependent upon the pulsewidth of the associated data pulse.

10) A method of adapting an information carrying signal as claimed in any of the preceding claims wherein the pulsewidth of the one or more sub-pulses are directly dependent upon the pulsewidth of the associated data pulse.

11) A method of adapting an information carrying signal as claimed in any of Claim 4 to 10 wherein the coinciding of the one or more sub-pulses with one or more edges of one or more of the plurality of data pulses acts to time shift a rising edge of an associated data pulse.

12) A method of adapting an information carrying signal as claimed in any of Claim 4 to 10 wherein the coinciding of the one or more sub-pulses with one or more edges of one or more of the plurality of data pulses acts to time shift a falling edge of an associated data pulse.

13) A method of adapting an information carrying signal as claimed in Claim 11 wherein the time shifting of the rising edge of an associated data pulse comprises advancing in time the rising edge.

14) A method of adapting an information carrying signal as claimed in Claim 12 wherein the time shifting of the falling edge of an associated data pulse comprises delaying in time the falling edge.

15) A method of adapting an information carrying signal as claimed in any of Claims 11 or 14 wherein the time shifting of the edge of the associated data pulse is by a predetermined value.

16) A method of adapting an information carrying signal as claimed in Claim 11 or 15 wherein the time shifting of the edge of the associated data pulse is directly dependent upon the pulsewidth of the associated data pulse.

17) An electronic circuit suitable for adapting an electronic input signal of a transmitter, the electronic input signal comprising a plurality of electrical data pulses, the electronic circuit comprises an electronic input channel, a clock pulse phase delay circuit, a signal processor and an electronic output channel wherein the signal processor analyses one or more of the plurality of electrical data pulses supplied on the electronic input channel and one or more clock pulse phase delay signals provided by the clock pulse phase delay circuit so as to introduce one or more electrical sub-pulses to one or more of the plurality of electrical data pulses so as to provide an adapted electronic output signal on the electronic output channel.

18) An electronic circuit as claimed in Claim 17 wherein the introduction of one or more of the electrical sub-pulses are timed so that these electrical sub-pulses are contained within one or more of the plurality of electrical data pulses to which the electrical sub-pulses are introduced.

19) An electronic circuit as claimed in Claim 17 or Claim 18 wherein the introduction of one or more of the electrical sub-pulses are timed so that these electrical sub-pulses coincide with one or more edges of one or more of the plurality of electrical data pulses to which the electrical sub-pulses are introduced.

20) An electronic circuit as claimed in any of Claims 17 to 19 wherein the clock pulse phase delay circuit comprises means for supply a first clock pulse and one or more phase delayed clock pulses to the signal processor.

21) An electronic circuit as claimed in any of Claims 17 to 20 wherein the signal processor comprises first electronic means for producing an internal signal pulse when subsequent electrical data pulses exhibit substantially the same value.

22) An electronic circuit as claimed in any of Claims 17 to 21 wherein the signal processor further comprises a second electronic means for introducing an electronic sub-pulse to the electronic input signal when the internal signal pulse is detected by the second electronic means.

23) An electronic circuit as claimed in any of Claims 17 to 22 wherein the signal processor further comprises a third electronic means for altering the timing of the electrical subpulses so allowing the subpulses to coincide with a rising or falling edge of an electrical data pulse.

24) An electronic circuit as claimed in any of Claims 21 to 23 wherein the timing of the first electronic means is controlled by the first clock pulse.

25) An electronic circuit as claimed in Claims 23 or 24 wherein the second and third electronic means are controlled by the combination of the first clock pulse and the one or more phase delayed clock pulses.